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cooling the male and female joint surfaces to solidify the meltable material between the male and female joint surfaces.

REMARKS

Claims 1-21 are currently pending in the application.

Claim 2 stands rejected under 35 U.S.C. §112 as allegedly being indefinite. The Examiner takes the position that the language of claim 2 is inconsistent with the language of claim 1. Contrary to the position taken by the Examiner, claim 2 does not require that the material melts before moving. Claim 2 merely states that the region at the second location is heated to a temperature at which the meltable material melts before the ring of meltable material is moved from the first location to the second location. Accordingly, withdrawal of the rejection of claim 2 under 35 U.S.C. §112 is requested.

Claims 1, 11 and 16 have been amended to clarify the method without changing the scope of the claims.

Claims 1, 4, 6, 8, 11, 13, 14, 16-18, 20 and 21 stand rejected under 35 U.S.C. §102 as allegedly anticipated by U.S. Patent No. 4,958,857 (Sixsmith). Claims 1, 4, 6, 8, 11, 13, 14, 16-18, 20 and 21 stand rejected under 35 U.S.C. §102 as allegedly anticipated by U.S. Patent No. 3,784,239, to Carter et al (Carter). Claims 1-21 stand rejected under 35 U.S.C. §103 as obvious over U.S. Patent No. 6,264,062, to Lack et al (Lack).

Reconsideration of the rejection of claims 1-21 is requested.

Sixsmith does not teach or suggest the structure in the claims alleged to be anticipated by an Examiner. In independent claims 1, 11 and 16, the meltable material is slid from a first location to a second location. With the meltable material at the second location, no appreciable portion of the meltable material resides between radially facing portions of the male element and the female element prior to melting. Sixsmith describes the meltable material as part of the welding sleeve 21 which is expressly described as residing "between the inside surface 14 of the socket element and the outside surface 18 of the pipe" (column 2, lines 13-15). The inside surface 14 is the radially facing surface on the element 12, which the Examiner alleges to correspond to the claimed female element.

The same is true with respect to Carter. Carter's allegedly corresponding ring of meltable material 16 is adhered to the male element 14 and threadably engaged to reside in the female element 24.

Accordingly, independent claims 1, 11 and 16 are not anticipated by either of Sixsmith or Carter. Dependent claims 4, 6, 8, 13, 14, 17, 18, 20 and 21 depend directly or indirectly from one of claims 1, 11 and 16 and recite further significant limitations to further distinguish over the cited references.

Lack also consistently teaches the placement of the allegedly corresponding rings of meltable material between radially facing portions of the male element and female element before melting occurs. Since the rings in all

of the embodiments are consistently placed between radially facing surfaces on male and female elements, one skilled in the art would not be motivated, based upon Lack's teachings, to situate the meltable material so that no appreciable portion resides between radially facing portions of the male and female elements, as claimed.

The Examiner suggests that Fig. 6 shows such a structure. However, Fig. 6 relates to an irregularly shaped element which is described in column 6, lines 8-28, as functioning in the same manner as the other embodiments but with the capability of accommodating irregularities which make maintenance of tolerances difficult.

Reconsideration of the rejection of claims 1-21 and allowance of the case are respectfully requested.

Respectfully submitted,

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CLAIMS AS AMENDED

1. (Thrice Amended) A method of forming a meltable material at a joint between telescopingly engaged male and female elements, said method comprising the steps of:

directing the male element into the female element so that the male and female elements are telescopingly engaged and a radially facing joint surface on the female element surrounds a radially facing joint surface on the male element;

with the male and female elements telescopingly engaged, placing a ring of the meltable material around one of the male and female elements at a first location;

sliding the ring of meltable material guidingly directly against the one of the male and female elements from the first location [of] to a second location at which no appreciable portion of the meltable material resides between radially facing portions of the male element and the female element;

heating the male and female elements at the joint to a temperature at which the meltable material melts;

with the ring of meltable material at the second location and the male and female elements at the joint at a temperature at which the meltable material melts, [heating the male and female elements at the joint to a temper-

ature at which the meltable material melts and thereby] causing the meltable material to flow between the male and female joint surfaces; and

cooling the male and female elements at the joint to solidify the meltable material between the male and female joint surfaces.

11. (Thrice Amended) A method of forming a meltable material at a joint between telescopingly engaged male and female elements, the female element having a free edge, said method comprising the steps of:

directing the male element into the female element so that the male and female elements are telescopingly engaged and a radially facing joint surface on the female element surrounds a radially facing joint surface on the male element;

with the male and female elements telescopingly engaged, placing a ring of the meltable material around the male element at a first location spaced from the free edge of the female element,

sliding the meltable material guidingly directly against the male element from the first location closer to the free edge of the female element to a second location at which no appreciable portion of the meltable material resides between radially facing portions of the male element and the female element;

heating the male and female elements at the joint to a temperature at which the meltable material melts;

with the meltable material at the second location, [heating the male and female elements at the joint to a temperature at which the meltable material melts and thereby] causing the melted meltable material to flow between the male and female elements; and

cooling the male and female elements at the joint to solidify the meltable material between the male and female joint surfaces.

16. (Thrice Amended) A method of making a connection between male and female elements, said method comprising the steps of:

directing the male element into the female element so that the male and female elements are telescopingly engaged and a radially facing joint surface on the female element surrounds a radially facing joint surface on the male element;

providing a ring of meltable material;

with the male and female elements telescopingly engaged, directing one of the male and female elements through the ring of meltable material to a first location on the one of the male and female elements;

after directing the one of the male and female elements through the ring of meltable material, directing the male element into the female element so that the female joint surface surrounds the male joint surface;

with the male element in the female element, sliding the ring of the meltable material guidingly directly against the one of the male and female

elements to a second location at which no appreciable portion of the meltable material resides between radially facing portions of the male element and the female element

[with the meltable material at the second location,] heating the male and female elements at the joint to a temperature at which the meltable material and thereby causing the melted meltable material at the second location to flow between the male and female elements; and

cooling the male and female joint surfaces to solidify the meltable material between the male and female joint surfaces.